

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

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AND RECLAMATION
CAMBRIDGE

ATTACHMENT 20
(SEDIMENTATION POND/IMPOUNDMENT DATA SHEET)

Applicant's Name THE OHIO VALLEY COAL COMPANY Pond # 014

Type of impoundment EXCAVATED Permanent _____, Temporary X

1. POND DRAINAGE AREA DATA:

- a) Drainage area 95 acres
- b) Disturbed area 95 acres
- c) Ave. land slope 1 %
- d) Hydrologic soil group N/A (MINE REFUSE)
- e) Hydraulic length 3450 ft.
- f) Cover/condition of the undisturbed area N/A

2. DESIGN STORM CRITERIA:

a) Method:

1) Design method (s) including computer programs: SEDCAD +

2) SCS curve number 87

b) Rainfall Amount/Peak Flow	Rainfall, in.	Peak flow, cfs.
1) 10 year, 24 hour =	<u>3.7</u>	<u>162</u>
2) 25 year, 24 hour =	<u>4.3</u>	<u>199</u>
3) 50 year, 6 hour = (if permanent)	_____	_____
4) 100 year, 6 hour = (if 20/20 size)	_____	_____

3. POND SIZE:

a) Dimensions: **N/A**

- 1) Dam height _____ ft.
- 2) Dam width _____ ft.
- 3) Dam length _____ ft.
- 4) Dam downstream slope _____ %
- 5) Dam upstream slope _____ %
- 6) Core length _____ ft. _____ ft. _____ ft.

b) Sediment storage volume 10.62 ac. ft. is provided below the 1006.0 foot elevation.

c) Stage/Area Data:	Elevation ft.	Surface Area ac.	Volume ac.ft.
1) Bottom of pond	<u>1000.0</u>	<u>1.54</u>	<u>0</u>
2) Streambed at upstream toe:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
3) Principal spillway inlet:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
4) Exit Channel Crest:	<u>1006.0</u>	<u>2.01</u>	<u>10.62</u>
5) Top of embankment:	<u>1010.0</u>	<u>2.35</u>	<u>19.33</u>

PRINCIPAL SPILLWAY: N/A

- a) Pipe length _____ ft.
- b) Pipe diameter _____ in.
- c) Pipe slope _____ %
- d) Riser diameter _____ in.
- e) Riser height _____ ft.
- f) Type of pipe _____
- g) Number of anti-seep collars _____; spacing along pipe _____ ft.
- h) Does the design include a trash rack? _____ Yes, _____ No.
- i) Does the design include an anti-vortex device? _____ Yes, _____ No.

5. EMERGENCY SPILLWAY/EXIT CHANNEL:

- a) Base width 20 ft.
- b) Design flow depth 0.7 ft. Depth in level section 1.7 ft.
- c) Exit slope 10 %
- d) Exit velocity 9.4 fps
- e) Channel lining ROCK RIPRAP (D_{MAX}=12")
- f) Side slopes 2:1
- g) Freeboard 2.3 ft.
- h) Entrance slope 33 %
- i) Length of level section 10 ft.

6. The minimum static factor of safety for this impoundment is 1.5

7. Provide as an addendum to this attachment a detailed plan view or 2 cross sections of the impoundment.

8. COMMENTS A 6 INCH DIAMETER CORRUGATED POLYETHYLENE PIPE 80' LONG AT
A SLOPE OF 6% WILL BE USED TO DEWATER THE POND. THE INVERT
WILL BE AT THE 1004.0 ELEVATION.

9. Is this an MSHA structure? _____ Yes, X No. If "yes," provide the
MSHA ID. number if one has been assigned _____.

10. If this is to be retained as a permanent impoundment, submit an addendum
to this attachment demonstrating compliance with rule 1501:13-9-04(H) (2)
of the Administrative Code.

11. I hereby certify that this impoundment is designed to comply with the
applicable requirements of rule 1501:13-9-04 of the Administrative Code
using current, prudent engineering practices.

William J. Siplivy
Signature

2-24-98
Date

P.E. SEAL

